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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/748,118	12/27/2000	Dae Jin Myung	YHK-059	4164

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EXAMINER

AWAD, AMR A

ART UNIT	PAPER NUMBER
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2675

8

DATE MAILED: 06/17/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/748,118

Applicant(s)

MYUNG, DAE JIN

Examiner

Amr Awad

Art Unit

2675

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☐ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

2. The listing of references in the information disclosure statement has been considered by the Examiner; see attached PTO-1449.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claim 9 is rejected under 35 U.S.C. 102(e) as being anticipated by Kanazawa et al. (US patent NO. 6,429,834; hereinafter referred to as Kanazawa).

Kanazawa (figure 4) teaches a method for driving a plasma display panel having scanning/sustaining electrodes (Y1-YN) and address electrodes (from the address driver 105) formed perpendicularly to the scanning/sustaining electrodes and including an address interval for selecting discharge cells (col. 4, lines 39-60). Kanazawa (figure

Art Unit: 2675

5) teaches applying different polarity of pulses to the scanning/sustaining electrodes (Y) in the address interval (as can be seen in figure 5, Kanazawa shows that the pulses applied to the scanning/sustaining electrodes (Y) having different polarity than the polarity from the addressing pulses) (col. 5, lines 22-37).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kanazawa in view of Weber (US patent NO. 5,430,458).

As to independent claim 1, Kanazawa (FIG. 4) teaches a plasma display panel wherein address interval for selecting discharge cell is included and a display area, and a non-display area co-exist (claim 3, lines 49-63). Kanazawa teaches a common sustaining electrodes (X) formed in parallel to the scanning/sustaining electrodes (Y1-YN) at each discharge cell (col. 4, lines 39-60). Kanazawa (figure 2) teaches at least two dummy electrodes (auxiliary electrodes 23a and 23b) (col. 4, lines 7-18). Kanazawa does not expressly teach that the at least two dummy electrodes being provided at the non-display area, for supplying the non-display area with charged particles in address interval.

However, Webber (figure 1) teaches a plasma display panel that includes dummy electrodes at the non-display area (in Webber's device, the dummy pulses are supplied in the display and non-display area) (col. 6, line 57 through col. 7, line 20).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include the teaching of Webber having dummy electrodes (lines) to be incorporated to Kanazawa's device so as motivated by Webber, to reduce the flickering of the display device (col. 4, lines 28-40).

As to claim 2, Webber teaches that the address driver can be used as address driver and as a dummy driver (col. 7, lines 14-20).

As to claim 3, Webber teaches that the discharge cells are supplied with charged particles produced by the discharging between the dummy electrodes (col. 6, lines 49-63).

As to claim 4, Webber teaches, as can be seen in figure 1 that the dummy electrodes (lines) are formed parallel to the scanning/sustaining electrodes.

As to claim 5, having the common sustaining electrodes maintain ground potential is inherent (see Kanazawa, col. 5, lines 8-21).

7. Claims 6-8 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nguyen et al. (US patent NO. 6,181,305; hereinafter referred to as Nguyen).

As to independent claim 6, Nguyen (figure 1B) teaches a plasma display panel wherein an address interval for selecting discharge cells is included and a display area and non-display area co-exist (col. 4, lines 10-36). Nguyen (figures 4A-4C) teaches

Art Unit: 2675

applying auxiliary pulse Vv and scanning pulse to the scanning/sustaining electrodes formed at the display area so that the scanning/sustaining electrodes can sequentially cause a second auxiliary discharge (col. 7, lines 11-47).

Nguyen does not expressly teach having a dummy electrode driver for applying dummy pulse to dummy electrodes such that the dummy electrodes formed at the non-display area can cause a first auxiliary discharge in the address interval.

However, Webber (figure 1) teaches a plasma display panel that includes dummy electrodes at the non-display area (in Webber's device, the dummy pulses are supplied in the display and non-display area) (col. 6, line 57 through col. 7, line 20). Webber teaches that the address driver can be used as address driver and as a dummy driver (col. 7, lines 14-20).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include the teaching of Webber having dummy electrodes (lines) to be incorporated to Nguyen's device so as motivated by Webber, to reduce the flickering of the display device (col. 4, lines 28-40).

As to claim 7, Webber teaches that the discharge cells are supplied with charged particles produced by the discharging between the dummy electrodes (col. 6, lines 49-63).

As to claim 8, Nguyen shows in figures 4A-4C that the auxiliary pulse is positive, and Nguyen shows in figure 3 that the scanning pulse is negative (col. 6, lines 12-63).

As to independent claim 12, the claim is substantially similar to the apparatus of claim 6 and would be analyzed as previously discussed with respect to claim 6 above.

Art Unit: 2675

8. Claims 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kanazawa in view of Webber.

As to claim 10, as can be seen above, Kanazawa teaches all the limitation of claim 10 except the citation of an auxiliary pulse to the scanning/sustaining electrodes to produce charged particles within the discharge cells in the address interval.

However, Webber (figure 1) teaches a plasma display panel that includes dummy electrodes at the non-display area (in Webber's device, the dummy pulses are supplied in the display and non-display area) (col. 6, line 57 through col. 7, line 20).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include the teaching of Webber having dummy electrodes (lines) to be incorporated to Kanazawa's device so as motivated by Webber, to reduce the flickering of the display device (col. 4, lines 28-40).

As to claim 11, as can be seen from figure 5 of Kanazawa, the scanning pulses are negative, and the auxiliary pulses of Webber (figure 6) are positive.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Nagao et al. (US patent NO. 6,084,559) teaches a plasma display panel that includes auxiliary electrodes.

Ishii et al. (US patent NO. 6,373,452) teaches a plasma display panel that includes barrier located in the non-display areas.

Art Unit: 2675

Moon (US patent NO. 6,384,802) teaches a plasma display panel that includes auxiliary electrodes.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amr Awad whose telephone number is (703)308-8485. The examiner can normally be reached on Monday-Friday, between 9:00AM to 5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Saras can be reached on (703)305-9720. The fax phone numbers for the organization where this application or proceeding is assigned are (703)872-9314 for regular communications and (703)872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-4750.

A handwritten signature in black ink, reading "Amr Ahmed Awad". The signature is fluid and cursive, with a long horizontal stroke at the end.

A.A.
June 15, 2003